

Modified Though Delta Conveyance Alternative (Alt. 2)

Ecosystem Restoration - The Ecosystem Restoration Program Plan would be implemented with the following refinements:

- Changes in environmental water flows would be met through purchase of existing water from willing sellers and use of the new storage allocated to environmental water supplies.
- The modification of the Mokelumne River Floodway with setback levees, conversion of Bouldin Island to aquatic habitat, and construction of the East Delta Wetlands Habitat will create about 5,000 to 10,000 acres more habitat than identified in the ERPP.
- Incorporate a portion of identified south Delta wildlife habitat with the setback levees along Old River.

Water Quality - The Water Quality Program, discussed earlier, would be implemented with the following refinements:

- Evaluate relocating the water supply intake for North Bay Aqueduct to avoid salts and organic carbon that reduce the ability to recycle water, complicate disinfection, and are sources of disinfection byproducts. Alternative 2 would not, overall, result in improvement of North Bay Aqueduct export water quality, and a change of intake location would be necessary for North Bay Aqueduct water users to benefit from the Delta solution.
- Relocate Delta island drainage discharges away to channels other than those identified for conveyance modifications.

Levee System Integrity - The Long-Term Levee Protection Plan would be implemented as described earlier.

Water Use Efficiency - The Water Use Efficiency Program would be implemented as described earlier.

Water Transfers - The Water Transfer Policy Framework would be implemented as described earlier.

Watershed Management Coordination - Watershed Management Coordination would be implemented as described earlier.

Storage Facilities - Construction of storage facilities would be authorized on the Sacramento and San Joaquin River systems, in or near the Delta and off-aqueduct storage south of the Delta would be provided through this alternative. Storage would include both surface water impoundments and groundwater conjunctive use.

The ranges of storage included in Alternative 2 are as follows:

Sacramento Valley

- 0 to 3.0 MAF Surface Storage
- 0 to 250 TAF Groundwater Storage

San Joaquin Valley

- 0 to 500 TAF Surface Storage
- 0 to 500 TAF Groundwater Storage

In-Delta, Near-Delta, or off-aqueduct south of the Delta

- 0 to 2.0 MAF Surface Storage

As described for Alternative 1, an option for extension of the Tehama-Colusa Canal and/or relocation of the North Bay Aqueduct diversion to another point on the Sacramento River will be evaluated in Phase III of the Program.

Delta Conveyance Facilities - Draft Alternative 2 is based on Alternative 2B. Its major structural features include a screened intake on the Sacramento River near Hood. The capacity of this new diversion facility would be on the order of 10,000 cfs.

With this alternative, a new isolated channel would be constructed from Hood to McCormack Williamson Tract to preserve the existing warm water fishery habitat in Snodgrass Slough. A fish ladder or equivalent would be constructed to convey fish upstream past the pumps and screens to the Sacramento River. Consideration would be given to including turnouts to provide flow for Stone Lake Refuge and a Sacramento County groundwater conjunctive use operation. The McCormack Williamson Tract levee would be breached and the island flooded to provide shallow water habitat and improve water conveyance.

DNCT

The Mokelumne River channel would be widened to improve water conveyance and flood control in the northern Delta. A 600-foot-wide alignment would be purchased along the Mokelumne River from I-5 to the San Joaquin River. Existing levees on one side of the existing channel would be replaced with new setback levees approximately 500 feet back from the existing channel. Existing levees would be removed where they obstruct the new channel with the remaining portions converted to channel islands. Existing improvements would be relocated or replaced where displaced by the widened channel. The new setback levees would be constructed in stages over several years. When the foundations of the new levees consolidate (over a 5+ year period), existing levees would be breached.

A new 15,000 cfs capacity screened intake with pumps would be constructed at the head of Clifton Court, and an interconnection of the CVP and SWP at Clifton Court would consolidate the project intakes through a single screen facility.

Old River would be enlarged in the reach north of Clifton Court to reduce channel velocities and associated scouring, and to enable the fish screen facility to operate more effectively.

An operable barrier would be provided at the head of Old River to maintain a positive flow down the San Joaquin River and keep San Joaquin River fish in the river channel. If needed, flow and stage control measures would be included on Middle River, Grant Line Canal, and Old River. Alternatives to these barriers will also be explored.

Operating Criteria - Existing Bay-Delta standards were used as a starting point to evaluate the performance of Alternative 2. Some additional assumptions were necessary to account for new facilities, as described below:

- Improvements in south Delta channels and the SWP and CVP export facilities would result in allowable use of full capacity of the SWP Delta export facility, Banks Pumping Plant, when all Bay-Delta standards are met.

Discussion of Phase II Conveyance Options

The primary decision in refining a through-Delta alternative centers on the choice of which Mokelumne River channel to widen and use as the primary water conduit. As currently conceived, the North Fork would be the main conduit; however, it has also been suggested that the South Fork be used. Proponents of the South Fork option suggest that this choice would improve water quality and the ability to repel salinity intrusion from the Bay and ocean. The current concept of using the North Fork is based on the belief that the South Fork has important habitat value that would be lost if the channel was enlarged. This region of the Delta supports Swainson's Hawk, wintering waterfowl, greater sandhill cranes, and migrating shorebirds, which all rely on the region's large open expanses of rich agricultural lands for resting and foraging. Also, the South Fork would provide important opportunities for habitat enhancement as an element of the Ecosystem Restoration Program element. A final decision on this option will be made after further study during Phase III of the program, if Alternative 2 should become the preferred program alternative.

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- SWP export facilities may be used to deliver water to CVP users.
 - Delta Cross-Channel gates are closed except for the months of July through October.

Alternative 2

10,000 cfs Screened Intake

Setback Levees and Channel Modifications (typical)

Shallow Channel Isolated from Snodgrass Slough

Flooded McCormack-Williamson Tract

Operable Flow Control Barriers
Operable Fish Control Barrier

Up to 500 TAF Surface Storage
Up to 500 TAF Groundwater Storage

Up to 2.0 MAF Off-Aqueduct Storage

Up to 3.0 MAF Surface Storage
Up to 250 TAF Groundwater Storage

15,000 cfs Fish Screens and Pump Station

Channel Enlargement

